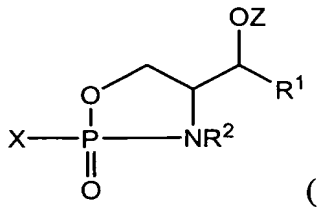
Attachment B

In the Claims:

Claims 1-56 (canceled)

57. (new) An oxazaphospholane compound of the following formula (1):



(1)

wherein R^1 represents a C_1-C_{24} aliphatic moiety which may be saturated or unsaturated, branched or linear chain, optionally containing an aliphatic ring, R^2 represent a hydrogen atom or hydrophobic group, Z represents a protecting group and X represents a leaving group.

58. (new) The oxazaphospholane compound of claim 57, wherein R^2 represents a hydrogen atom or a C_1-C_{24} aliphatic moiety selected from saturated or unsaturated, branched or linear aliphatic chain, said aliphatic chain optionally containing an aliphatic ring; the aliphatic chain and aliphatic ring optionally substituted with one or more substituents containing a heteroatom selected from oxygen, halogen, nitrogen and sulfur.

59. (new) The oxazaphospholane compound of claim 57, wherein R^1 represents a C_8-C_{24} aliphatic moiety.

60. (new) The oxazaphospholane compound of claim 58, wherein R^2 represents a hydrogen atom or a saturated or unsaturated C_8-C_{24} aliphatic moiety.

61. (new) The oxazaphospholane compound of claim 60, wherein R^2 represents a hydrogen atom.

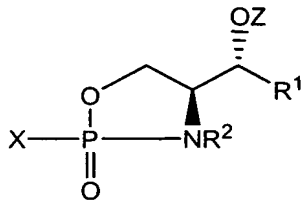
62. (new) The oxazaphospholane compound of claim 57, wherein X represents a halogen atom.

63. (new) The oxazaphospholane compound of claim 62, wherein X represents Cl.

64. (new) The oxazaphospholane compound of claim 57, wherein Z represents a $Si(R^5)_3$ group in which R^5 may be the same or different in the same compound and represent a C_1-C_6 branched or straight alkyl group or an aryl group.

65. (new) The oxazaphospholane compound of claim 64, wherein said Z represents $Si(Ph)_2(t\text{-}Bu)$.

66. (new) An oxazaphospholane compound of the following formula (1a):



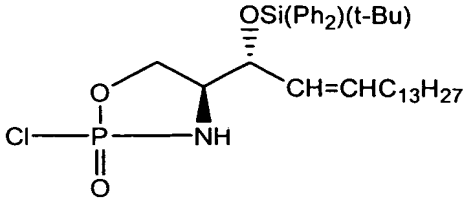
(1a)

being the 2S,3R stereoisomer of the compound of claim 57, wherein R^1, R^2, X and Z are as defined in said Claim 57.

67. (new) The oxazaphospholane compound of claim 57, wherein R^1 is (*E*)-$CH{=}CHC_{13}H_{27}$, R^2 is hydrogen, X is Cl and Z is $Si(Ph)_2(t\text{-}Bu)$.

68. (new) The oxazaphospholane compound of claim 57, wherein R^1 is (*E*)-$CH{=}CHC_{13}H_{27}$, R^2 is hydrogen, X is substituted with the group $-O\text{-}CH_2\text{-}CH_2\text{-}N^+(CH_3)_3$.

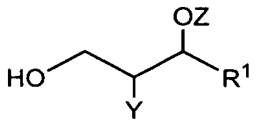
69. (new) The oxazaphospholane compound of claim 57, being the (*E*)-geometrical isomer of the compound of the following formula (1b):



(1b)

70. (new) The oxazaphospholane compound of claim 57, being an isolated stable compound.

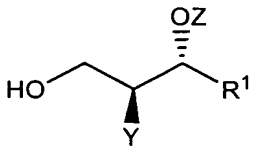
71. (new) A process for the manufacture of an oxazaphospholane compound of formula (1) as defined in claim 57, the process comprises reacting a phosphorylating reagent with a 3-O-protected sphingoid compound of the following formula (2):



(2)

wherein R^1, Z and X are as defined in claim 57, and Y is an amine or an amino group.

72. (new) The process of claim 71, comprising reacting said phosphorylating reagent with a 2S, 3R stereoisomer of the following formula (2a):



(2a)

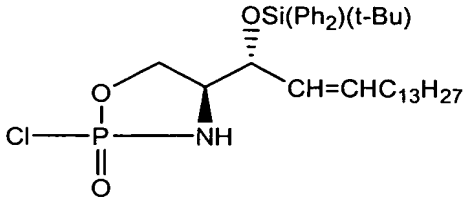
73. (new) The process of claim 71, wherein said phosphorylating reagent is reacted with the protected sphingoid compound in which Y represents NH_2.

74. (new) The process of claim 71, wherein said phosphorylating reagent is selected from POW_3, wherein W represents a halogen atom; an ethylene

chlorophosphite; a methyl phosphodichloridite; a chloro-N,N-diisopropylaminomethyxophosphite; or $[(isopropyl)_2N]_2POCH_2CH_2CN$.

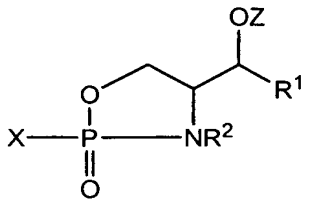
75. (new) The process of claim 74, wherein said phosphorylating reagent is $POCl_3$.

76. (new) The process of claim 71, for the synthesis of the (*E*)- geometrical isomer of the compound of the following formula (1b):



(1b)

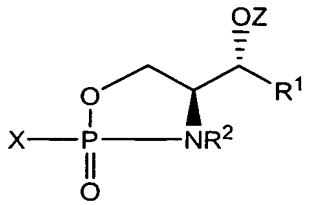
77. (new) An oxazaphospholane compound of the following formula (1):



(1)

wherein R^1 represents a C_1-C_{24} aliphatic moiety which may be saturated or unsaturated, branched or linear chain, optionally containing an aliphatic ring, R^2 represent a hydrogen atom or hydrophobic group, Z represents a protecting group and X represents a leaving group, obtainable by the process of claim 71.

78. (new) An oxazaphospholane compound of the following formula (1a):

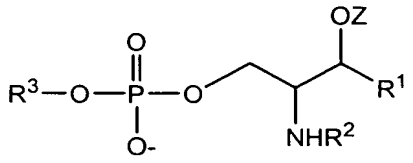


(1a)

wherein R^1 represents a C_1-C_{24} aliphatic moiety which may be saturated or unsaturated, branched or linear chain, optionally containing an aliphatic ring, R^2

represent a hydrogen atom or hydrophobic group, Z represents a protecting group and X represents a leaving group, obtainable by the process of claim 71.

79. (new) A process making use of the oxazaphospholane of formula (1) as defined in claim 57, for the manufacture of an acyclic oxazaphospholane derivative having the following formula (3):



(3)

wherein R^1, R^2 and Z are as defined, and R^3 represent a hydrogen atom; an aliphatic moiety selected from aliphatic chain, amino aliphatic chain, heteroatom comprising aliphatic chain, aliphatic chain comprising a cyclic ring which ring may be saturated, partially saturated ring or an aryl group, said aliphatic chain may be branched or straight, saturated or unsaturated chain; or ether, polyether, or sugar moiety;

the process comprises the step of reacting said oxazaphospholane of formula (1) with an alcohol or the formula R^3OH where R^3 is as defined, followed by treatment with an aqueous base or aqueous acid.

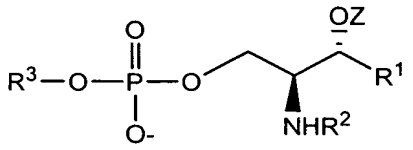
80. (new) The process of claim 79, wherein said alcohol is selected from choline, N-protected ethanolamines, oligoethyleneglycol monoethers, polyethyleneglycol monoehthers, polyethers, or sugar moiety.

81. (new) The process of claim 80, wherein said alcohol is choline.

82. (new) The process of claim 79, wherein said aqueous base is selected from trialkylamine, alkali metal- or alkali earth metal- hydroxide, carbonate or bicarbonate.

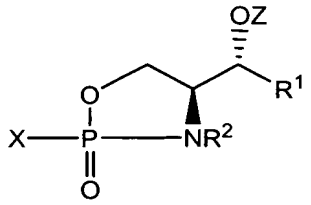
83. (new) The process of claim 79, wherein said aqueous acid is a strong mineral acid or a Lewis acid.

84. (new) The process of claim 79 for the manufacture of the 2S, 3R stereoisomer of formula (3a):



(3a)

the process making use of a compound of formula (1a)

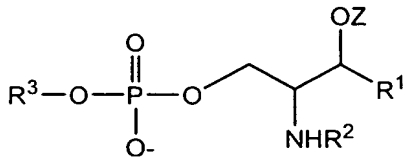


(1a)

wherein R^1, R^2, R^3, X and Z are as defined in claim 79.

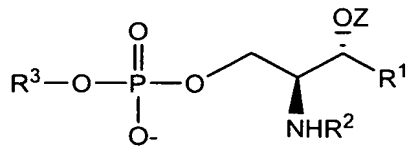
85. (new) The process of claim 79, comprising reacting said compound of formula (3) or (3a) with a protecting group removing reagent to replace the protecting group Z with a hydrogen atom.

86. (new) A phosphate derivative having the following formula (3):



(3)

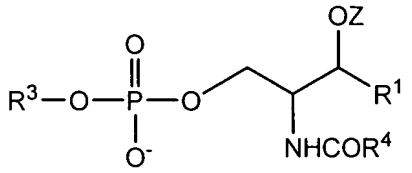
or its 2S, 3R stereoisomer of formula (3a):



(3a)

obtained by the process of claim 79, wherein R^1, R^2, R^3 and Z are as defined in said claim 79.

87. (new) A process making use of the oxazaphospholane of formula (1) as defined in claim 57, wherein R^2 is a hydrogen atom, for the manufacture of a phosphate derivative having the following formula (4):

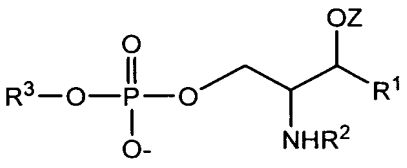


(4)

wherein R^1, and Z are as defined, R^3 represent a hydrogen atom; an aliphatic moiety selected from aliphatic chain, amino aliphatic chain, heteroatom comprising aliphatic chain, aliphatic chain comprising a cyclic ring which ring may be saturated, partially saturated or aromatic ring, said aliphatic chain may be branched or straight, saturated or unsaturated chain; or an ether, polyether, or sugar moiety; and R^4 is a hydrophobic group;

the process comprises

preparing a phosphate derivative of formula (3),



(3)

wherein R^1, R^2 and Z are as defined, and R^3 represent a hydrogen atom; an aliphatic moiety selected from aliphatic chain, amino aliphatic chain, heteroatom comprising aliphatic chain, aliphatic chain comprising a cyclic ring which ring may be saturated, partially saturated ring or an aryl group, said aliphatic chain may be branched or straight, a saturated or unsaturated chain; or ether, polyether, or a sugar moiety; and

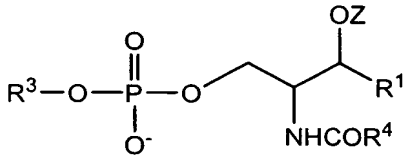
reacting said phosphate derivative of formula (3) with an acyl compound of formula $R^4C(O)Q$, wherein Q is a leaving group.

88. (new) The process of claim 87, wherein said R^4 represents a C_1-C_{24} aliphatic moiety selected from saturated or unsaturated, branched or linear aliphatic chain, said aliphatic chain optionally containing an aliphatic ring; the aliphatic chain or ring optionally substituted with one or more substituents containing a heteroatom selected from oxygen, halogen, nitrogen and sulfur.

89. (new) The process of claim 88, wherein said R^4 represents a saturated or unsaturated C_8-C_{24} aliphatic chain.

90. (new) The process of claim 87, for the manufacture of the 2S, 3R stereoisomer of the compound of formula (4), said process making use of the 2S, 3R stereoisomer of the compound of formula (1a).

91. (new) A phosphate derivative having the following formula (4):

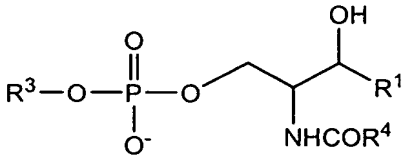


(4)

or its 2S, 3R stereoisomer;

obtained by the process of claim 86, wherein R^1, R^3, R^4 and Z are as defined.

92. (new) A process making use of the oxazaphospholane of formula (1) as defined in claim 57, wherein R^2 is a hydrogen atom, for the manufacture of a sphingomyelin derivative having the following formula (5):

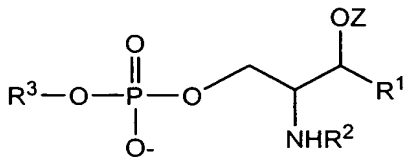


(5)

where R^1 and R^3 are as defined, and R^4 is a hydrophobic group,

the process comprises:

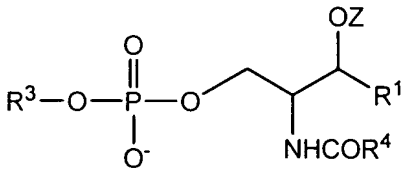
reacting said oxazaphospholane of formula (1) with an alcohol or the formula R^3OH where R^3 is as defined, followed by treatment with an aqueous base or aqueous acid to obtain a phosphate derivative having the following formula (3):



(3)

wherein R^1, R^2 and Z are as defined, and R^3 represent a hydrogen atom; an aliphatic moiety selected from aliphatic chain, amino aliphatic chain, heteroatom comprising aliphatic chain, aliphatic chain comprising a cyclic ring which ring may be saturated, partially saturated ring or an aryl group, said aliphatic chain may be branched or straight, a saturated or unsaturated chain; or ether, polyether, or a sugar moiety;

reacting said phosphate derivative of formula (3) with an acyl compound of formula $R^4C(O)Q$, wherein Q is a leaving group and R^4 represents a C_1-C_{24} aliphatic moiety selected from saturated or unsaturated, branched or linear aliphatic chain, said aliphatic chain optionally containing an aliphatic ring; the aliphatic chain or ring optionally substituted with one or more substituents containing a heteroatom selected from oxygen, halogen, nitrogen and sulfur, to obtain a phosphate derivative of the following formula (4):



(4)

wherein R^1, and Z are as defined, R^3 represent a hydrogen atom; an aliphatic moiety selected from aliphatic chain, amino aliphatic chain, heteroatom comprising aliphatic chain, aliphatic chain comprising a cyclic ring which ring may be saturated, partially saturated or aromatic ring, said aliphatic chain may be branched or straight, saturated or unsaturated chain; or an ether, polyether, or sugar moiety; and R^4 is a hydrophobic group; and

reacting said phosphate derivative of formula (4) with a protecting group removing agent to obtain a said sphingomyelin.

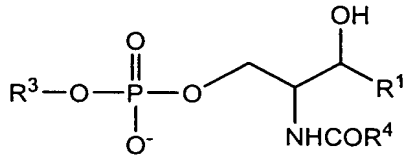
93. (new) The process of claim 92, for the manufacture of the 2S, 3R stereoisomer of the compound of formula (5), said process making use of the 2S, 3R stereoisomer of the compound of formula (1a).

94. (new) The process of claim 92, wherein Z in said compound of formula (4) is $Si(Ph_2)(t\text{-}Bu)$.

95. (new) The process of claim 92, wherein said protecting group is removed by the use of hydrogen fluoride or $(R^6)_4NF$, wherein R^6 is a C_1-C_6 alkyl group.

96. (new) The process of claim 95, wherein R^6 is n-butyl.

97. (new) A sphingomyelin having the following formula (5):

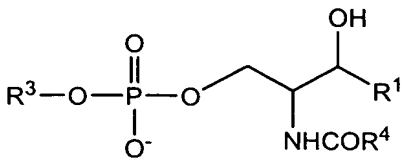


(5)

or its 2S, 3R stereoisomer

obtainable by the process of claim 92, wherein said R^1, R^3 and R^4 are as defined, provided that when said R^2 represents a C_{15} or C_{17} alkyl chain, R^1 cannot represent trans-$CH{=}CHC_{13}H_{27}$ and R^3 cannot represent $CH_2CH_2N^+(CH_3)_3$.

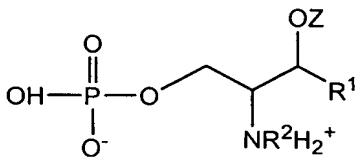
98. (new) A sphingomyelin having the following formula (5):



(5)

or its 2S, 3R stereoisomer, obtained by the process of claim 92, wherein said R^1, R^3 and R^4 are as defined in said claim 92.

99. (new) A process making use of the oxazaphospholane of formula (1) as defined in claim 57, for the manufacture of a phosphate derivative having the following formula (6):



(6)

wherein R^1, R^2 and Z are as defined, the process comprises reacting said oxazaphospholane of formula (1) with an aqueous base or an aqueous acid.

100.(new) The process of claim 99, for the manufacture of the 2S, 3R stereoisomer of the compound of formula (6), said process making use of the 2S, 3R stereoisomer of the compound of formula (1a).

101. (new) The process of claim 99, wherein said aqueous base is selected from trialkylamine, alkali metal- and alkali earth metal- hydroxide, carbonate or bicarbonate

102. (new) The process of claim 99, wherein said aqueous acid is a strong mineral acid or a Lewis acid.

103. (new) A phosphate derivative having the formula (6), or (6a) obtained by the process of claim 92.

104. (new) A pharmaceutical composition comprising a sphingomyelin according to claim 97.